

BAFC 1635  
Copy 2 of 7

18 August 1955

MEMORANDUM FOR THE RECORD

SUBJECT: Visit to Eastman Kodak Co. on 15 August 1955

1. The following descriptions of the film systems under consideration by Eastman Kodak Co. were obtained from [ ] on 15 August 1955.

a. System No. 1 - This is a dual emulsion system. The two types of emulsions, one fast and one slow, would be selected on the basis of experiments which would reveal the proper balance required, considering the area to be photographed and the conditions under which photographing would take place. A considerable amount of processing equipment is required to develop this type of film. Also roll form of film requires different equipment from sheet form of film. The disadvantages of the 2 layer film are:

- (1) additional weight - 4 lbs per 1000 ft. in the 9½ in. width,
- (2) complex processing,
- (3) lower over all sensitivity at the fast end.

The advantage of the two layer film is that it affords an insurance that if any photography is possible this film will record it.

b. System No. 2 - This is a one layer emulsion involving an interrupted process of developing. This was the original concept of the type of film to be used. The film is started in the developing process and the first cut brings out the lowest level of speed in the photograph. This process can then be continued until developing brings out all that is recorded on the film under the varying conditions of photography. The disadvantage of this film is that two handlings of the film in developing are necessary. The advantages are:

- (1) conventional process,
- (2) lighter in weight,
- (3) affords greater latitude.

DOCUMENT NO. \_\_\_\_\_  
NO CHANGE IN CLASS. ☒  
☐ DECLASSIFIED  
CLASS. CHANGED TO: TS S O  
NEXT REVIEW DATE: 2011  
AUTH: NR 20-2  
DATE: 17/12/81 REVIEWER: 064540

-2-

c. System No. 3 - This system requires rather strict programming of flights. Its basic premise is the utilization of either a high-speed film and a moderate-speed film, as required by the conditions of photography. For high light level conditions a fast film would be loaded; when known low light level conditions are expected a slower film would be loaded. Under some conditions the film could be spliced to utilize a slow speed film during the morning hours of low light level conditions and a fast film during high light level conditions later in the day. This system would provide the best quality of all the systems as it involves no compromise. In connection with this system it would be necessary for Eastman to provide expert technical advice at each scene of operations in order that as a part of the programming of the flight the best film, or combination of films, could be loaded prior to take-off. [ ] has promised to consider the possibility of Eastman providing personnel to assist in this operation in the event this system were to be selected. Disadvantages are:

- (1) Programming of flights is absolutely necessary.
- (2) Expert technical advice from Eastman must be available at the bases.
- (3) Problems of logistics, i.e. two types of film must be stocked.

Advantages are:

- (1) Best quality system
- (2) Conventional processing.

d. System No. 4 - This system also requires programming of flights. A single film type would be used - a high-speed film such as is a part of system No. 3. The film would be made fast or slow, as required, in the processing operation. Presumably a knowledge of the programmed flight would allow all necessary pre-settings to be made in order to obtain the maximum output in quality and this knowledge would also contribute to proper developing

2. Arrangements are being made to test fly samples of film under varying conditions and basic data obtained can be used to assist in determinations as to which of the systems, as well as which emulsions, will be most effective for our purposes.

3. A key decision, of course, is the matter of programmed vs non-programmed flights. It would appear that strict programming (to the

25X1A

-3-

ultimate extent possible) is a necessity, not necessarily from the standpoint of the type of film to be used, but also for other considerations (navigational aspects, weather, etc.) and, if so, this information should be made known to Tuttle so that his recommendations with respect to film systems will be based on all information available to us as to how we plan to operate.

4. Since a meeting is scheduled with Eastman on 2 September 1955, every effort should be made to define the conditions of operation to Eastman at that time, as well as to provide answers to Eastman's collateral problems as discussed in a separate memo.

25X1A

Contracting Officer

25X1A

Orig -  Master  
2 -  Service ✓  
3 - SA/FC/DCI  
4 - Lundahl  
5 -   
6 - chrono  
7 - reading

25X1A

GFK:mah